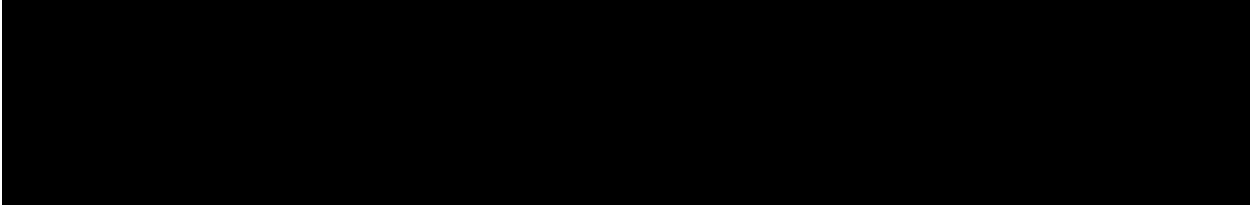


**To:** Minter, Douglas[Minter.Douglas@epa.gov]  
**From:** Albright, David  
**Sent:** Fri 10/10/2014 8:56:08 PM  
**Subject:** Re: Data for Class II aquifer exemptions

This is great, Douglas. I really appreciate the prompt and thorough reply. I think it would be helpful to see a record of decision, so feel free to send that along also. Enjoy your weekend! David

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.



Hi David: I am copying in three other Regional folks who also have extensive experience with reviewing AE requests, both DI and State. I am also attaching responses to some of your questions from Wendy Cheung who reviews both simple and complex AE requests for Class I, II, and III injection wells in our Region. She has attached an example of an AE request from the Colorado Class II program. I can also provide you with a copy of a recent EPA Class II AE Record of Decision document...just let me know.

In general, those State programs that regularly send us Class II AE requests (i.e., CO, MT, and WY) have been willing to align information in these requests with the data outlined in the newly-released checklist. The checklist has helped ensure that we are asking for the right information, in addition to Guidance 34. In providing us the information from the permit applicant, it is equally important that the State document its own analysis, and complete its own decision making process before formally asking EPA to render a decision. EOR projects are typically the most straightforward. It is rare that these (or disposal well) projects present a current use issue because of aquifer depth and the presence of hydrocarbons or minerals. Disposal well AE requests can be less straightforward to determine future use, and we typically want to see the State factor in several pieces of data including aquifer quality, sustained yield, and depth in comparing the aquifer proposed for exemption with other potential USDWs in an area.

While we rely on the State's analysis for these more straightforward AE requests, we typically look at the applicant's data and ensure that the State's conclusions are reasonable. That said, our Record of Decision documents EPA's conclusions, not the State's. If we should arrive at a

different conclusion (i.e., disapproval), it is often because the applicant's data is not complete or contains a significant degree of uncertainty regarding the potential for current and/or future use.

Douglas

**From:** Cheung, Wendy  
**Sent:** Friday, October 10, 2014 9:46 AM  
**To:** Minter, Douglas; Bowling, Linda  
**Subject:** RE: Data for Class II aquifer exemptions

Responses to Dave's ?s:

What did the state submit?

This can vary from state to state, some states you get the entire permit application. Some states you get pieces of what is needed for the review and then you need to go back and ask for more. Attached is COGCC's last submission.

How heavily do you rely on the state's review/analysis of information developed by the oil/gas operator vs. EPA's own independent analysis?

I do rely on the State's analysis, which as you point out is based on the operator's application, for the straight forward requests. I do like to have data to support the information submitted, for example, water analysis, cross-sections of the geology showing the confinement, etc. I will do an independent analysis when there are potential red flags, which may include low TDS, thin confinement, nearby drinking water wells, or absence of data.

Do you adhere to the 45-day regulatory deadline for approval?

Unless they cite 146.4(c), there is no regulatory deadline. In some cases, through an MOA, EPA is expected to respond within 45 days, but that is not regs.

My observation is that there's a lot of back and forth between PO and their States and there is difficulty in getting the needed information to move forward on a permit. In those cases, the AE have not been responded to within 45 days. I think the Region 8 checklist (more streamlined version of HQ's document) will go a long way in expediting the process and defining what EPA needs for their review.

**From:** Albright, David

**Sent:** Thursday, October 09, 2014 10:54 AM

**To:** Minter, Douglas; Dellinger, Philip; Platt, Steve; Johnson, KarenD

**Subject:** Data for Class II aquifer exemptions

We are having a lot of conversations with the State of CA about the type and format of information/analysis/data required to be submitted for a Class II aquifer exemption – mostly for EOR and disposal in 3,000-10,000 ppm TDS formations. HQs checklist is a useful guidepost of what needs to be analyzed, but I'm curious whether you all have any particular guidance or experience to share for actual Class II AEs that you have approved. What did the state submit? How heavily do you rely on the state's review/analysis of information developed by the oil/gas operator vs. EPA's own independent analysis? Do you adhere to the 45-day regulatory deadline for approval? I know you have all dealt with highly complex AE issues, but here I am more interested in the more straightforward, routine Class II exemptions (assuming these exist). Feel free to give me a call if that would be more efficient.

Thanks,  
David

David Albright | Drinking Water Protection Section | EPA Region 9 San Francisco | 415 972-3971